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ANALYTICAL REPORT

SEP 14 1998

UCS/START

TDD: Vazquez and I-70

Lot #: D8G280161

Randy Perlis

URS Operating Services

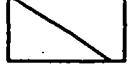
QUANTERRA INCORPORATED

Ellen La Riviere
Project Manager

September 12, 1998

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Standard Deliverables With Supporting Documentation

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Supporting Documentation		
<i>[Please Note: A one-page "Description of Supporting Documentation" is provided in the Supporting Documentation section(s).]</i>		
Volatile GC/MS	B	148
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Metals	G	458
General Chemistry	H	
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Case Narrative

Total Metals analyses

Antimony was recovered above the upper control limit in the LCSD associated with the samples in this project. Because this would indicate a high bias to the data, an antimony was not detected above the reporting limits in any of the samples, the data was not adversely effected, and no further action was required.

Several metals were recovered outside the accuracy and/or precision control limits in the MS/MSD associated with the samples in this project. Because the LCS/LCSD were within acceptable limits, a matrix effect is indicated and no further action was required.

With the exceptions noted above or on the analytical data sheets, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. All laboratory quality control samples analyzed in conjunction with the samples in this project were within established control limits.

EXECUTIVE SUMMARY - Detection Highlights

D8G280161

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
C4690CY 07/24/98 12:32 006				
Beryllium	0.43	0.24	mg/kg	SW846 6010B
Calcium	4560	24.3	mg/kg	SW846 6010B
Cadmium	6.8	0.61	mg/kg	SW846 6010B
Cobalt	4.2	1.2	mg/kg	SW846 6010B
Chromium	15.2	1.2	mg/kg	SW846 6010B
Copper	23.9	2.4	mg/kg	SW846 6010B
Iron	11900	12.2	mg/kg	SW846 6010B
Potassium	2490	609	mg/kg	SW846 6010B
Magnesium	2340	24.3	mg/kg	SW846 6010B
Manganese	284	1.2	mg/kg	SW846 6010B
Sodium	104 B	609	mg/kg	SW846 6010B
Nickel	8.3	4.9	mg/kg	SW846 6010B
Antimony	4.0 B	7.3	mg/kg	SW846 6010B
Vanadium	21.2	1.2	mg/kg	SW846 6010B
Zinc	184	1.2	mg/kg	SW846 6010B
Percent Moisture	17.8	0.10	%	MCAWW 160.3 MOD

ANALYTICAL METHODS SUMMARY

D8G280161

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A
Organochlorine Pesticides	SW846 8081A
Percent Moisture	MCAWW 160.3 MOD
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B
TCLP BNA's	SW846 8270B
TCLP Volatiles	SW846 8260A

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

ANALYTICAL METHODS SUMMARY

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Organochlorine Pesticides	SW846 8081A
Percent Moisture	MCAWW 160.3 MOD
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B
TCLP BNA's	SW846 8270B
TCLP Volatiles	SW846 8260A

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D8G280161

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
MCAWW 160.3 MOD		3251
SW846 6010B	Jennifer Oxelson	002720
SW846 6010B	Tracy Anderson	009690
SW846 6010B	William G. Logan	002179
SW846 7471A	Greg T. Brott	008463
SW846 7471A	William G. Logan	2179
SW846 8081A	Joseph Jamero	002001
SW846 8260A	Kerri Keller	002129
SW846 8270B	Tom Claeys	001396

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY**D8G280161**

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
CK5V1	001	C4336ST	07/22/98	15:47
CK5V5	002	C4940ST	07/22/98	16:52
CK5V7	003	C4690CY	07/24/98	12:32
CK7FX	004	C4336ST	07/22/98	15:47
CK7G0	005	C4940ST	07/22/98	16:52
CK7G1	006	C4690CY	07/24/98	12:32

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

URS OPERATING SERVICES

Client Sample ID: C4336ST

TCLP GC/MS Volatiles

Lot-Sample #....: D8G280161-001 Work Order #....: CK5V1101 Matrix.....: SOLID
 Date Sampled...: 07/22/98 15:47 Date Received...: 07/28/98
 Leach Date.....: 07/29/98 Prep Date.....: 08/12/98 Analysis Date...: 08/12/98
 Leach Batch #...: P821502 Prep Batch #....: 8224219 Analysis Time...: 12:07
 Dilution Factor: 1 Method.....: SW846 8260A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Benzene	ND	0.050	mg/L
2-Butanone	ND	0.20	mg/L
Carbon tetrachloride	ND	0.050	mg/L
Chlorobenzene	ND	0.050	mg/L
Chloroform	ND	0.050	mg/L
1,2-Dichloroethane	ND	0.050	mg/L
1,1-Dichloroethene	ND	0.050	mg/L
Tetrachloroethene	ND	0.050	mg/L
Trichloroethene	ND	0.050	mg/L
Vinyl chloride	ND	0.10	mg/L

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>	
		<u>RECOVERY</u>	<u>LIMITS</u>
1,2-Dichloroethane-d4	97	(80 - 120)	
4-Bromofluorobenzene	96	(86 - 115)	
Toluene-d8	106	(88 - 110)	

NOTE(S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

URS OPERATING SERVICES

Client Sample ID: C4940ST

TCLP GC/MS Volatiles

Lot-Sample #...: D8G280161-002 Work Order #...: CK5V5101 Matrix.....: SOLID
 Date Sampled...: 07/22/98 16:52 Date Received..: 07/28/98
 Leach Date.....: 07/29/98 Prep Date.....: 08/12/98 Analysis Date..: 08/12/98
 Leach Batch #...: P821502 Prep Batch #...: 8224219 Analysis Time..: 12:31
 Dilution Factor: 1

Method.....: SW846 8260A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
Benzene	ND	0.050	mg/L
2-Butanone	ND	0.20	mg/L
Carbon tetrachloride	ND	0.050	mg/L
Chlorobenzene	ND	0.050	mg/L
Chloroform	ND	0.050	mg/L
1,2-Dichloroethane	ND	0.050	mg/L
1,1-Dichloroethene	ND	0.050	mg/L
Tetrachloroethene	ND	0.050	mg/L
Trichloroethene	ND	0.050	mg/L
Vinyl chloride	ND	0.10	mg/L

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>LIMITS</u>
	<u>RECOVERY</u>		
1,2-Dichloroethane-d4	96	(80 - 120)	
4-Bromofluorobenzene	95	(86 - 115)	
Toluene-d8	106	(88 - 110)	

NOTE (S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

URS OPERATING SERVICES

Client Sample ID: C4690CY

TCLP GC/MS Volatiles

Lot-Sample #...: D8G280161-003 Work Order #...: CK5V7101 Matrix.....: SOLID
 Date Sampled...: 07/24/98 12:32 Date Received...: 07/28/98
 Leach Date.....: 07/29/98 Prep Date.....: 08/12/98 Analysis Date...: 08/12/98
 Leach Batch #..: P821502 Prep Batch #...: 8224219 Analysis Time...: 12:55
 Dilution Factor: 1

Method.....: SW846 8260A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
Benzene	ND	0.050	mg/L
2-Butanone	ND	0.020	mg/L
Carbon tetrachloride	ND	0.050	mg/L
Chlorobenzene	ND	0.050	mg/L
Chloroform	ND	0.050	mg/L
1,2-Dichloroethane	ND	0.050	mg/L
1,1-Dichloroethene	ND	0.050	mg/L
Tetrachloroethene	ND	0.050	mg/L
Trichloroethene	ND	0.050	mg/L
Vinyl chloride	ND	0.10	mg/L

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	98	(80 - 120)
4-Bromofluorobenzene	99	(86 - 115)
Toluene-d8	103	(88 - 110)

NOTE(S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

URS OPERATING SERVICES

Client Sample ID: C4336ST

TCLP GC/MS Semivolatiles

Lot-Sample #....: D8G280161-001 Work Order #....: CK5V1102 Matrix.....: SOLID
 Date Sampled...: 07/22/98 15:47 Date Received...: 07/28/98
 Leach Date.....: 07/29/98 Prep Date.....: 08/03/98 Analysis Date...: 08/17/98
 Leach Batch #...: P821106 Prep Batch #....: 8215208 Analysis Time...: 13:46
 Dilution Factor: 1 Method.....: SW846 8270B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1, 4-Dichlorobenzene	ND	0.050	mg/L
2, 4-Dinitrotoluene	ND	0.050	mg/L
Hexachlorobenzene	ND	0.050	mg/L
Hexachlorobutadiene	ND	0.050	mg/L
Hexachloroethane	ND	0.050	mg/L
2-Methylphenol	ND	0.050	mg/L
Nitrobenzene	ND	0.050	mg/L
Pentachlorophenol	ND	0.25	mg/L
Pyridine	ND	0.10	mg/L
2, 4, 5-Trichlorophenol	ND	0.050	mg/L
2, 4, 6-Trichlorophenol	ND	0.050	mg/L
3-Methylphenol & 4-Methylphenol	ND	0.050	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	77	(42 - 112)
Phenol-d5	75	(52 - 124)
Nitrobenzene-d5	86	(28 - 132)
2-Fluorobiphenyl	71	(43 - 106)
2, 4, 6-Tribromophenol	79	(48 - 122)
Terphenyl-d14	91	(35 - 132)

NOTE (S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

URS OPERATING SERVICES

Client Sample ID: C4940ST

TCLP GC/MS Semivolatiles

Lot-Sample #...: D8G280161-002 Work Order #...: CK5V5102 Matrix.....: SOLID
 Date Sampled...: 07/22/98 16:52 Date Received..: 07/28/98
 Leach Date.....: 07/29/98 Prep Date.....: 08/03/98 Analysis Date..: 08/17/98
 Leach Batch #..: P821106 Prep Batch #...: 8215208 Analysis Time..: 16:09
 Dilution Factor: 1

Method.....: SW846 8270B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
1,4-Dichlorobenzene	ND	0.050	mg/L
2,4-Dinitrotoluene	ND	0.050	mg/L
Hexachlorobenzene	ND	0.050	mg/L
Hexachlorobutadiene	ND	0.050	mg/L
Hexachloroethane	ND	0.050	mg/L
2-Methylphenol	ND	0.050	mg/L
Nitrobenzene	ND	0.050	mg/L
Pentachlorophenol	ND	0.25	mg/L
Pyridine	ND	0.10	mg/L
2,4,5-Trichlorophenol	ND	0.050	mg/L
2,4,6-Trichlorophenol	ND	0.050	mg/L
3-Methylphenol & 4-Methylphenol	ND	0.050	mg/L

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorophenol	79	(42 - 112)
Phenol-d5	78	(52 - 124)
Nitrobenzene-d5	89	(28 - 132)
2-Fluorobiphenyl	75	(43 - 106)
2,4,6-Tribromophenol	83	(48 - 122)
Terphenyl-d14	86	(35 - 132)

NOTE(S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

URS OPERATING SERVICES

Client Sample ID: C4690CY

TCLP GC/MS Semivolatiles

Lot-Sample #....: D8G280161-003 Work Order #....: CK5V7102 Matrix.....: SOLID
 Date Sampled...: 07/24/98 12:32 Date Received...: 07/28/98
 Leach Date.....: 07/29/98 Prep Date.....: 08/03/98 Analysis Date...: 08/17/98
 Leach Batch #...: P821106 Prep Batch #....: 8215208 Analysis Time...: 16:56
 Dilution Factor: 1 Method.....: SW846 8270B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
1,4-Dichlorobenzene	ND	0.050	mg/L
2,4-Dinitrotoluene	ND	0.050	mg/L
Hexachlorobenzene	ND	0.050	mg/L
Hexachlorobutadiene	ND	0.050	mg/L
Hexachloroethane	ND	0.050	mg/L
2-Methylphenol	ND	0.050	mg/L
Nitrobenzene	ND	0.050	mg/L
Pentachlorophenol	ND	0.25	mg/L
Pyridine	ND	0.10	mg/L
2,4,5-Trichlorophenol	ND	0.050	mg/L
2,4,6-Trichlorophenol	ND	0.050	mg/L
3-Methylphenol & 4-Methylphenol	ND	0.050	mg/L

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorophenol	79	(42 - 112)
Phenol-d5	77	(52 - 124)
Nitrobenzene-d5	90	(28 - 132)
2-Fluorobiphenyl	75	(43 - 106)
2,4,6-Tribromophenol	82	(48 - 122)
Terphenyl-d14	87	(35 - 132)

NOTE(S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

URS OPERATING SERVICES

Client Sample ID: C4336ST

TCLP GC Semivolatiles

Lot-Sample #....: D8G280161-001 Work Order #....: CK5V110A Matrix.....: SOLID
 Date Sampled...: 07/22/98 15:47 Date Received..: 07/28/98
 Leach Date.....: 07/29/98 Prep Date.....: 08/03/98 Analysis Date..: 08/14/98
 Leach Batch #...: P821106 Prep Batch #....: 8215165 Analysis Time..: 06:28
 Dilution Factor: 1 Method.....: SW846 8081A

<u>PARAMETER</u>	<u>REPORTING</u>		
	<u>RESULT</u>	<u>LIMIT</u>	<u>UNITS</u>
gamma-BHC (Lindane)	ND	0.00050	mg/L
Endrin	ND	0.0010	mg/L
Heptachlor	ND	0.00050	mg/L
Heptachlor epoxide	0.00063	0.00050	mg/L
Methoxychlor	ND	0.0050	mg/L
Toxaphene	ND	0.050	mg/L

<u>SURROGATE</u>	<u>PERCENT</u>		<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>	
Décachlorobiphenyl	111	(50 - 138)	
Tetrachloro-m-xylene	102	(51 - 103)	

NOTE (S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

URS OPERATING SERVICES

Client Sample ID: C4940ST

TCLP GC Semivolatiles

Lot-Sample #...: D8G280161-002 Work Order #...: CK5V510A Matrix.....: SOLID
 Date Sampled...: 07/22/98 16:52 Date Received...: 07/28/98
 Leach Date.....: 07/29/98 Prep Date.....: 08/03/98 Analysis Date..: 08/14/98
 Leach Batch #...: P821106 Prep Batch #....: 8215165 Analysis Time..: 07:02
 Dilution Factor: 1

Method.....: SW846 8081A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
gamma-BHC (Lindane)	ND	0.00050	mg/L
Endrin	ND	0.0010	mg/L
Heptachlor	ND	0.00050	mg/L
Heptachlor epoxide	0.00037 J	0.00050	mg/L
Methoxychlor	ND	0.0050	mg/L
Toxaphene	ND	0.050	mg/L

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Decachlorobiphenyl	108	(50 - 138)
Tetrachloro-m-xylene	93	(51 - 103)

NOTE (S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

J Estimated result. Result is less than RL.

URS OPERATING SERVICES

Client Sample ID: C4690CY

TCLP GC Semivolatiles

Lot-Sample #....: D8G280161-003 Work Order #....: CK5V710A Matrix.....: SOLID
 Date Sampled...: 07/24/98 12:32 Date Received...: 07/28/98
 Leach Date.....: 07/29/98 Prep Date.....: 08/03/98 Analysis Date...: 08/14/98
 Leach Batch #..: P821106 Prep Batch #....: 8215165 Analysis Time...: 08:44
 Dilution Factor: 1 Method.....: SW846 8081A

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
gamma-BHC (Lindane)	ND	0.00050	mg/L
Endrin	ND	0.0010	mg/L
Heptachlor	ND	0.00050	mg/L
Heptachlor epoxide	0.00022 J	0.00050	mg/L
Methoxychlor	ND	0.0050	mg/L
Toxaphene	ND	0.050	mg/L
<u>SURROGATE</u>		<u>PERCENT</u>	<u>RECOVERY</u>
		<u>RECOVERY</u>	<u>LIMITS</u>
Decachlorobiphenyl	113	(50 - 138)	
Tetrachloro-m-xylene	97	(51 - 103)	

NOTE (S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

J Estimated result. Result is less than RL.

URS OPERATING SERVICES

Client Sample ID: C4336ST

TCLP Metals

Lot-Sample #....: D8G280161-001 Matrix.....: SOLID
 Date Sampled....: 07/22/98 15:47 Date Received..: 07/28/98
 Leach Date.....: 07/29/98 Leach Batch #.: P821106

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>			<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>			<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #....: 8218160							
Arsenic	1.1	0.50	mg/L	SW846 6010B	Analysis Time...: 18:49	08/06-08/20/98	CK5V1103
		Dilution Factor: 1					
Barium	0.31 B	10.0	mg/L	SW846 6010B	Analysis Time...: 18:49	08/06-08/20/98	CK5V1104
		Dilution Factor: 1					
Cadmium	0.012 B	0.10	mg/L	SW846 6010B	Analysis Time...: 18:49	08/06-08/20/98	CK5V1105
		Dilution Factor: 1					
Chromium	ND	0.50	mg/L	SW846 6010B	Analysis Time...: 18:49	08/06-08/20/98	CK5V1106
		Dilution Factor: 1					
Lead	0.065 B	0.50	mg/L	SW846 6010B	Analysis Time...: 18:49	08/06-08/20/98	CK5V1107
		Dilution Factor: 1					
Selenium	ND	0.25	mg/L	SW846 6010B	Analysis Time...: 18:49	08/06-08/20/98	CK5V1108
		Dilution Factor: 1					
Silver	ND	0.50	mg/L	SW846 6010B	Analysis Time...: 18:49	08/06-08/20/98	CK5V1109
		Dilution Factor: 1					
Prep Batch #....: 8238335							
Mercury	ND	0.00020	mg/L	SW846 7471A	Analysis Time...: 13:54	08/26/98	CK5V110C
		Dilution Factor: 1					

NOTE(S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

B Estimated result. Result is less than RL.

URS OPERATING SERVICES

Client Sample ID: C4940ST

TCLP Metals

Lot-Sample #...: D8G280161-002 Matrix.....: SOLID
 Date Sampled...: 07/22/98 16:52 Date Received..: 07/28/98
 Leach Date.....: 07/29/98 Leach Batch #..: P821106

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
Prep Batch #...: 8218160						
Arsenic	1.6	0.50	mg/L	SW846 6010B	08/06-08/20/98	CK5V5103
		Dilution Factor: 1		Analysis Time...: 18:21		
Barium	0.28 B	10.0	mg/L	SW846 6010B	08/06-08/20/98	CK5V5104
		Dilution Factor: 1		Analysis Time...: 18:21		
Cadmium	0.018 B	0.10	mg/L	SW846 6010B	08/06-08/20/98	CK5V5105
		Dilution Factor: 1		Analysis Time...: 18:21		
Chromium	0.0057 B	0.50	mg/L	SW846 6010B	08/06-08/20/98	CK5V5106
		Dilution Factor: 1		Analysis Time...: 18:21		
Lead	0.11 B	0.50	mg/L	SW846 6010B	08/06-08/20/98	CK5V5107
		Dilution Factor: 1		Analysis Time...: 18:21		
Selenium	ND	0.25	mg/L	SW846 6010B	08/06-08/20/98	CK5V5108
		Dilution Factor: 1		Analysis Time...: 18:21		
Silver	ND	0.50	mg/L	SW846 6010B	08/06-08/20/98	CK5V5109
		Dilution Factor: 1		Analysis Time...: 18:21		
Prep Batch #...: 8238335						
Mercury	ND	0.00020	mg/L	SW846 7471A	08/26/98	CK5V510C
		Dilution Factor: 1		Analysis Time...: 13:54		

NOTE(S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

B Estimated result. Result is less than RL.

URS OPERATING SERVICES

Client Sample ID: C4690CY

TCLP Metals

Lot-Sample #....: D8G280161-003 Matrix.....: SOLID
 Date Sampled...: 07/24/98 12:32 Date Received..: 07/28/98
 Leach Date.....: 07/29/98 Leach Batch #...: P821106

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #....:	8218160					
Arsenic	2.0	0.50	mg/L	SW846 6010B	08/06-08/20/98	CK5V7103
		Dilution Factor: 1		Analysis Time...: 18:24		
Barium	0.29 B	10.0	mg/L	SW846 6010B	08/06-08/20/98	CK5V7104
		Dilution Factor: 1		Analysis Time...: 18:24		
Cadmium	0.0089 B	0.10	mg/L	SW846 6010B	08/06-08/20/98	CK5V7105
		Dilution Factor: 1		Analysis Time...: 18:24		
Chromium	ND	0.50	mg/L	SW846 6010B	08/06-08/20/98	CK5V7106
		Dilution Factor: 1		Analysis Time...: 18:24		
Lead	0.11 B	0.50	mg/L	SW846 6010B	08/06-08/20/98	CK5V7107
		Dilution Factor: 1		Analysis Time...: 18:24		
Selenium	ND	0.25	mg/L	SW846 6010B	08/06-08/20/98	CK5V7108
		Dilution Factor: 1		Analysis Time...: 18:24		
Silver	ND	0.50	mg/L	SW846 6010B	08/06-08/20/98	CK5V7109
		Dilution Factor: 1		Analysis Time...: 18:24		
Prep Batch #....:	8238335					
Mercury	ND	0.00020	mg/L	SW846 7471A	08/26/98	CK5V710C
		Dilution Factor: 1		Analysis Time...: 13:54		

NOTE (S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

B Estimated result. Result is less than RL.

URS OPERATING SERVICES

Client Sample ID: C4336ST

TOTAL Metals

Lot-Sample #....: D8G280161-004

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS			
Manganese	264	1.1	mg/kg	SW846 6010B	08/10-08/21/98	CK7FX10E
		Dilution Factor: 1		Analysis Time..: 14:54		
Sodium	ND	572	mg/kg	SW846 6010B	08/10-08/21/98	CK7FX10F
		Dilution Factor: 1		Analysis Time..: 14:54		
Nickel	7.1	4.6	mg/kg	SW846 6010B	08/10-08/21/98	CK7FX10G
		Dilution Factor: 1		Analysis Time..: 14:54		
Lead	214	0.34	mg/kg	SW846 6010B	08/10-08/21/98	CK7FX10M
		Dilution Factor: 1		Analysis Time..: 15:27		
Antimony	4.7 B	6.9	mg/kg	SW846 6010B	08/10-08/21/98	CK7FX10H
		Dilution Factor: 1		Analysis Time..: 14:54		
Selenium	1.2	0.57	mg/kg	SW846 6010B	08/10-08/21/98	CK7FX10N
		Dilution Factor: 1		Analysis Time..: 15:27		
Thallium	1.2	1.1	mg/kg	SW846 6010B	08/10-08/21/98	CK7FX10P
		Dilution Factor: 1		Analysis Time..: 15:27		
Vanadium	20.4	1.1	mg/kg	SW846 6010B	08/10-08/21/98	CK7FX10J
		Dilution Factor: 1		Analysis Time..: 14:54		
Zinc	158	1.1	mg/kg	SW846 6010B	08/10-08/21/98	CK7FX10K
		Dilution Factor: 1		Analysis Time..: 14:54		

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

URS OPERATING SERVICES

Client Sample ID: C4940ST

TOTAL Metals

Lot-Sample #....: D8G280161-005

Date Sampled...: 07/22/98 16:52 Date Received...: 07/28/98

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....: 8218276						
Mercury	0.62	0.035	mg/kg	SW846 7471A	08/06-08/07/98	CK7G010Q
Dilution Factor: 1 Analysis Time...: 12:12						
Prep Batch #....: 8222147						
Silver	0.38 B	1.1	mg/kg	SW846 6010B	08/10-08/21/98	CK7G0101
		Dilution Factor: 1		Analysis Time...: 14:58		
Aluminum	5730	10.6	mg/kg	SW846 6010B	08/10-08/21/98	CK7G0102
		Dilution Factor: 1		Analysis Time...: 14:58		
Arsenic	268	1.1	mg/kg	SW846 6010B	08/10-08/21/98	CK7G010L
		Dilution Factor: 1		Analysis Time...: 15:32		
Barium	85.4	1.1	mg/kg	SW846 6010B	08/10-08/21/98	CK7G0103
		Dilution Factor: 1		Analysis Time...: 14:58		
Beryllium	0.33	0.21	mg/kg	SW846 6010B	08/10-08/21/98	CK7G0104
		Dilution Factor: 1		Analysis Time...: 14:58		
Calcium	2850	21.1	mg/kg	SW846 6010B	08/10-08/21/98	CK7G0105
		Dilution Factor: 1		Analysis Time...: 14:58		
Cadmium	4.5	0.53	mg/kg	SW846 6010B	08/10-08/21/98	CK7G0106
		Dilution Factor: 1		Analysis Time...: 14:58		
Cobalt	3.3	1.1	mg/kg	SW846 6010B	08/10-08/21/98	CK7G0107
		Dilution Factor: 1		Analysis Time...: 14:58		
Chromium	11.7	1.1	mg/kg	SW846 6010B	08/10-08/21/98	CK7G0108
		Dilution Factor: 1		Analysis Time...: 14:58		
Copper	15.2	2.1	mg/kg	SW846 6010B	08/10-08/21/98	CK7G0109
		Dilution Factor: 1		Analysis Time...: 14:58		
Iron	9380	10.6	mg/kg	SW846 6010B	08/10-08/21/98	CK7G010A
		Dilution Factor: 1		Analysis Time...: 14:58		
Potassium	1530	528	mg/kg	SW846 6010B	08/10-08/21/98	CK7G010C
		Dilution Factor: 1		Analysis Time...: 14:58		
Magnesium	1590	21.1	mg/kg	SW846 6010B	08/10-08/21/98	CK7G010D
		Dilution Factor: 1		Analysis Time...: 14:58		

(Continued on next page)

URS OPERATING SERVICES

Client Sample ID: C4940ST

TOTAL Metals

Lot-Sample #...: D8G280161-005

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
		LIMIT	UNITS				
Manganese	218	1.1	mg/kg	Dilution Factor: 1	SW846 6010B	08/10-08/21/98	CK7G010E
					Analysis Time...: 14:58		
Sodium	134 B	528	mg/kg	Dilution Factor: 1	SW846 6010B	08/10-08/21/98	CK7G010F
					Analysis Time...: 14:58		
Nickel	5.5	4.2	mg/kg	Dilution Factor: 1	SW846 6010B	08/10-08/21/98	CK7G010G
					Analysis Time...: 14:58		
Lead	288	0.32	mg/kg	Dilution Factor: 1	SW846 6010B	08/10-08/21/98	CK7G010M
					Analysis Time...: 15:32		
Antimony	3.5 B	6.3	mg/kg	Dilution Factor: 1	SW846 6010B	08/10-08/21/98	CK7G010H
					Analysis Time...: 14:58		
Selenium	0.78	0.53	mg/kg	Dilution Factor: 1	SW846 6010B	08/10-08/21/98	CK7G010N
					Analysis Time...: 15:32		
Thallium	0.47 B	1.1	mg/kg	Dilution Factor: 1	SW846 6010B	08/10-08/21/98	CK7G010P
					Analysis Time...: 15:32		
Vanadium	15.9	1.1	mg/kg	Dilution Factor: 1	SW846 6010B	08/10-08/21/98	CK7G010J
					Analysis Time...: 14:58		
Zinc	117	1.1	mg/kg	Dilution Factor: 1	SW846 6010B	08/10-08/21/98	CK7G010K
					Analysis Time...: 14:58		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

URS OPERATING SERVICES

Client Sample ID: C4690CY

TOTAL Metals

Lot-Sample #...: D8G280161-006

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
		LIMIT	UNITS				
Manganese	284	1.2	mg/kg	Dilution Factor: 1	SW846 6010B	08/10-08/21/98	CK7G110E
Sodium	104 B	609	mg/kg	Dilution Factor: 1	SW846 6010B	Analysis Time...: 15:03	08/10-08/21/98 CK7G110F
Nickel	8.3	4.9	mg/kg	Dilution Factor: 1	SW846 6010B	Analysis Time...: 15:03	08/10-08/21/98 CK7G110G
Lead	669	0.37	mg/kg	Dilution Factor: 1	SW846 6010B	Analysis Time...: 15:36	08/10-08/21/98 CK7G110M
Antimony	4.0 B	7.3	mg/kg	Dilution Factor: 1	SW846 6010B	Analysis Time...: 15:03	08/10-08/21/98 CK7G110H
Selenium	1.7	0.61	mg/kg	Dilution Factor: 1	SW846 6010B	Analysis Time...: 15:36	08/10-08/21/98 CK7G110N
Thallium	1.3	1.2	mg/kg	Dilution Factor: 1	SW846 6010B	Analysis Time...: 15:36	08/10-08/21/98 CK7G110P
Vanadium	21.2	1.2	mg/kg	Dilution Factor: 1	SW846 6010B	Analysis Time...: 15:03	08/10-08/21/98 CK7G110J
Zinc	184	1.2	mg/kg	Dilution Factor: 1	SW846 6010B	Analysis Time...: 15:03	08/10-08/21/98 CK7G110K

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

URS OPERATING SERVICES

Client Sample ID: C4336ST

General Chemistry

Lot-Sample #...: D8G280161-004 Work Order #...: CK7FX Matrix.....: SOLID
Date Sampled...: 07/22/98 15:47 Date Received..: 07/28/98

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Percent Moisture	12.6	0.10	#	MCAWW 160.3 MOD	08/01-08/22/98	8215253
		Dilution Factor:	1	Analysis Time...: 00:00		

URS OPERATING SERVICES

Client Sample ID: C4940ST

General Chemistry

Lot-Sample #....: D8G280161-005 Work Order #....: CK7G0 Matrix.....: SOLID
Date Sampled....: 07/22/98 16:52 Date Received...: 07/28/98

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Percent Moisture	5.4	0.10	%	MCAWW 160.3 MOD	08/01-08/22/98	8215253
		Dilution Factor:	1	Analysis Time...:	00:00	

URS OPERATING SERVICES

Client Sample ID: C4690CY

General Chemistry

Lot-Sample #....: D8G280161-006 Work Order #....: CK7G1 Matrix.....: SOLID
Date Sampled...: 07/24/98 12:32 Date Received...: 07/28/98

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Percent Moisture	17.8	0.10	#	MCAWW 160.3 MOD	08/01-08/22/98	8215253
		Dilution Factor:	1	Analysis Time...:	00:00	

QC DATA ASSOCIATION SUMMARY

D8G280161

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 8270B	P821106	8215208	8215068
	SOLID	SW846 8260A	P821502	8224219	8224089
	SOLID	SW846 7471A	P821106	8238335	8238175
	SOLID	SW846 8081A	P821106	8215165	8215100
	SOLID	SW846 6010B	P821106	8218160	8218037
002	SOLID	SW846 8270B	P821106	8215208	8215068
	SOLID	SW846 8260A	P821502	8224219	8224089
	SOLID	SW846 7471A	P821106	8238335	8238175
	SOLID	SW846 8081A	P821106	8215165	8215100
	SOLID	SW846 6010B	P821106	8218160	8218037
003	SOLID	SW846 8270B	P821106	8215208	8215068
	SOLID	SW846 8260A	P821502	8224219	8224089
	SOLID	SW846 7471A	P821106	8238335	8238175
	SOLID	SW846 8081A	P821106	8215165	8215100
	SOLID	SW846 6010B	P821106	8218160	8218037
004	SOLID	SW846 7471A		8218276	8218127
	SOLID	SW846 6010B		8222147	8222032
	SOLID	MCAWW 160.3 MOD		8215253	
005	SOLID	SW846 7471A		8218276	8218127
	SOLID	SW846 6010B		8222147	8222032
	SOLID	MCAWW 160.3 MOD		8215253	
006	SOLID	SW846 7471A		8218276	8218127
	SOLID	SW846 6010B		8222147	8222032
	SOLID	MCAWW 160.3 MOD		8215253	

LABORATORY CONTROL SAMPLE EVALUATION REPORT**GC/MS Volatiles**

Client Lot #....: D8G280161 **Work Order #....:** CKH9X102-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: D8H120000-219 **CKH9X103-LCSD**
Prep Date.....: 08/12/98 **Analysis Date...:** 08/12/98
Prep Batch #....: 8224219 **Analysis Time...:** 10:11
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	94	(66 - 148)			SW846 8260A
	87	(66 - 148)	7.2	(0-20)	SW846 8260A
1,2-Dichloroethane	96	(79 - 126)			SW846 8260A
	92	(79 - 126)	4.6	(0-20)	SW846 8260A
2-Butanone	67	(13 - 179)			SW846 8260A
	60	(13 - 179)	10	(0-21)	SW846 8260A
Benzene	94	(80 - 125)			SW846 8260A
	91	(80 - 125)	3.3	(0-20)	SW846 8260A
Carbon tetrachloride	98	(79 - 125)			SW846 8260A
	95	(79 - 125)	2.4	(0-20)	SW846 8260A
Chlorobenzene	101	(84 - 119)			SW846 8260A
	97	(84 - 119)	4.1	(0-20)	SW846 8260A
Chloroform	99	(81 - 120)			SW846 8260A
	94	(81 - 120)	4.6	(0-20)	SW846 8260A
Tetrachloroethene	97	(80 - 121)			SW846 8260A
	95	(80 - 121)	2.5	(0-20)	SW846 8260A
Trichloroethene	96	(78 - 126)			SW846 8260A
	94	(78 - 126)	2.8	(0-20)	SW846 8260A
Vinyl chloride	113	(14 - 185)			SW846 8260A
	109	(14 - 185)	4.1	(0-20)	SW846 8260A
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS			
1,2-Dichloroethane-d4	103	(80 - 120)			
	102	(80 - 120)			
4-Bromofluorobenzene	99	(86 - 115)			
	98	(86 - 115)			
Toluene-d8	100	(88 - 110)			
	100	(88 - 110)			

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #....: D8G280161 Work Order #....: CKH9X101 Matrix.....: SOLID
 MB Lot-Sample #: D8H120000-219
 Analysis Date...: 08/12/98 Prep Date.....: 08/12/98 Analysis Time...: 11:19
 Dilution Factor: 1 Prep Batch #....: 8224219

<u>PARAMETER</u>	<u>RESULT</u>	REPORTING		
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
Benzene	ND	0.050	mg/L	SW846 8260A
2-Butanone	ND	0.020	mg/L	SW846 8260A
Carbon tetrachloride	ND	0.050	mg/L	SW846 8260A
Chlorobenzene	ND	0.050	mg/L	SW846 8260A
Chloroform	ND	0.050	mg/L	SW846 8260A
1,2-Dichloroethane	ND	0.050	mg/L	SW846 8260A
1,1-Dichloroethene	ND	0.050	mg/L	SW846 8260A
Tetrachloroethene	ND	0.050	mg/L	SW846 8260A
Trichloroethene	ND	0.050	mg/L	SW846 8260A
Vinyl chloride	ND	0.10	mg/L	SW846 8260A

<u>SURROGATE</u>	<u>PERCENT</u>	RECOVERY	
		<u>RECOVERY</u>	<u>LIMITS</u>
1,2-Dichloroethane-d4	97	(80 - 120)	
4-Bromofluorobenzene	99	(86 - 115)	
Toluene-d8	104	(88 - 110)	

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TCLP GC/MS Volatiles

Client Lot #...: D8G280161 Work Order #...: CK5V710E-MS Matrix.....: SOLID
 MS Lot-Sample #: D8G280161-003 CK5V710F-MSD
 Date Sampled...: 07/24/98 12:32 Date Received...: 07/28/98
 Leach Date.....: 07/29/98 Prep Date.....: 08/12/98 Analysis Date...: 08/12/98
 Leach Batch #...: P821502 Prep Batch #...: 8224219 Analysis Time...: 13:19
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	95	(80 - 125)			SW846 8260A
	96	(80 - 125)	1.8	(0-20)	SW846 8260A
2-Butanone	58	(13 - 179)			SW846 8260A
	61	(13 - 179)	5.4	(0-21)	SW846 8260A
Carbon tetrachloride	100	(79 - 125)			SW846 8260A
	104	(79 - 125)	3.4	(0-20)	SW846 8260A
Chlorobenzene	99	(84 - 119)			SW846 8260A
	103	(84 - 119)	3.9	(0-20)	SW846 8260A
Chloroform	96	(81 - 120)			SW846 8260A
	99	(81 - 120)	2.6	(0-20)	SW846 8260A
1,2-Dichloroethane	93	(79 - 126)			SW846 8260A
	96	(79 - 126)	3.3	(0-20)	SW846 8260A
1,1-Dichloroethene	86	(66 - 148)			SW846 8260A
	88	(66 - 148)	2.4	(0-20)	SW846 8260A
Tetrachloroethene	96	(80 - 121)			SW846 8260A
	100	(80 - 121)	4.0	(0-20)	SW846 8260A
Trichloroethene	98	(78 - 126)			SW846 8260A
	100	(78 - 126)	2.2	(0-20)	SW846 8260A
Vinyl chloride	108	(14 - 185)			SW846 8260A
	110	(14 - 185)	1.8	(0-20)	SW846 8260A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	102	(80 - 120)
	103	(80 - 120)
4-Bromofluorobenzene	99	(86 - 115)
	99	(86 - 115)
Toluene-d8	99	(88 - 110)
	101	(88 - 110)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #....: D8G280161 Work Order #....: CK9R5102-LCS Matrix.....: SOLID
LCS Lot-Sample#: D8H030000-208 CK9R5103-LCSD

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: D8G280161 Work Order #...: CK9R5101 Matrix.....: SOLID
 MB Lot-Sample #: D8H030000-208 Prep Date.....: 08/03/98 Analysis Time..: 11:18
 Analysis Date..: 08/17/98 Prep Batch #...: 8215208
 Dilution Factor: 1

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>
		<u>LIMIT</u>	<u>UNITS</u>	
1,4-Dichlorobenzene	ND	0.050	mg/L	SW846 8270B
2,4-Dinitrotoluene	ND	0.050	mg/L	SW846 8270B
Hexachlorobenzene	ND	0.050	mg/L	SW846 8270B
Hexachlorobutadiene	ND	0.050	mg/L	SW846 8270B
Hexachloroethane	ND	0.050	mg/L	SW846 8270B
2-Methylphenol	ND	0.050	mg/L	SW846 8270B
Nitrobenzene	ND	0.050	mg/L	SW846 8270B
Pentachlorophenol	ND	0.25	mg/L	SW846 8270B
Pyridine	ND	0.10	mg/L	SW846 8270B
2,4,5-Trichlorophenol	ND	0.050	mg/L	SW846 8270B
2,4,6-Trichlorophenol	ND	0.050	mg/L	SW846 8270B
3-Methylphenol & 4-Methylphenol	ND	0.050	mg/L	SW846 8270B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>	
		<u>RECOVERY</u>	<u>LIMITS</u>
2-Fluorophenol	81	(42 - 112)	
Phenol-d5	81	(52 - 124)	
Nitrobenzene-d5	92	(28 - 132)	
2-Fluorobiphenyl	77	(43 - 106)	
2,4,6-Tribromophenol	85	(48 - 122)	
Terphenyl-d14	90	(35 - 132)	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TCLP GC/MS Semivolatiles

Client Lot #....: D8G280161 Work Order #....: CK5V110G-MS Matrix.....: SOLID
MS Lot-Sample #: D8G280161-001 CK5V110H-MSD

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Terphenyl-d14	89	(35 - 132)
	91	(35 - 132)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: D8G280161 Work Order #...: CK9L8102-LCS Matrix.....: SOLID
 LCS Lot-Sample#: D8H030000-165 CK9L8103-LCSD
 Prep Date.....: 08/03/98 Analysis Date...: 08/14/98
 Prep Batch #...: 8215165 Analysis Time...: 05:20
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	<u>RPD</u>	<u>RPD</u> <u>LIMITS</u>	<u>METHOD</u>
Endrin	100	(77 - 112)	2.2	(0-15)	SW846 8081A
	102	(77 - 112)			SW846 8081A
gamma-BHC (Lindane)	101	(74 - 121)	2.9	(0-15)	SW846 8081A
	104	(74 - 121)			SW846 8081A
Heptachlor epoxide	107	(37 - 142)	1.5	(0-15)	SW846 8081A
	106	(37 - 142)			SW846 8081A
Heptachlor	106	(69 - 125)	0.93	(0-13)	SW846 8081A
	107	(69 - 125)			SW846 8081A
Methoxychlor	118	(30 - 150)	6.1	(0-15)	SW846 8081A
	111	(30 - 150)			SW846 8081A
<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>			
Decachlorobiphenyl	114	(50 - 138)			
	108	(50 - 138)			
Tetrachloro-m-xylene	92	(51 - 103)			
	94	(51 - 103)			

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT**GC Semivolatiles**

Client Lot #....: D8G280161 Work Order #....: CK9L8101 Matrix.....: SOLID
 MB Lot-Sample #: D8H030000-165
 Analysis Date...: 08/14/98 Prep Date.....: 08/03/98 Analysis Time..: 04:46
 Dilution Factor: 1 Prep Batch #....: 8215165

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
gamma-BHC (Lindane)	ND	0.00050	mg/L	SW846 8081A
Endrin	ND	0.0010	mg/L	SW846 8081A
Heptachlor	ND	0.00050	mg/L	SW846 8081A
Heptachlor epoxide	ND	0.00050	mg/L	SW846 8081A
Methoxychlor	ND	0.0050	mg/L	SW846 8081A
Toxaphene	ND	0.050	mg/L	SW846 8081A

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u>	
		<u>LIMITS</u>	
Decachlorobiphenyl	115	(50 - 138)	
Tetrachloro-m-xylene	102	(51 - 103)	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT**TCLP GC Semivolatiles**

Client Lot #...: D8G280161 **Work Order #...**: CK5V510E-MS **Matrix.....:** SOLID
MS Lot-Sample #: D8G280161-002 CK5V510F-MSD
Date Sampled....: 07/22/98 16:52 **Date Received...:** 07/28/98
Leach Date.....: 07/29/98 **Prep Date.....:** 08/03/98 **Analysis Date..:** 08/14/98
Leach Batch #..: P821106 **Prep Batch #....:** 8215165 **Analysis Time..:** 07:36
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
gamma-BHC (Lindane)	106	(74 - 121)			SW846 8081A
	109	(74 - 121)	2.0	(0-15)	SW846 8081A
Endrin	106	(77 - 112)			SW846 8081A
	107	(77 - 112)	1.1	(0-15)	SW846 8081A
Heptachlor	110	(69 - 125)			SW846 8081A
	111	(69 - 125)	1.3	(0-13)	SW846 8081A
Heptachlor epoxide	108	(37 - 142)			SW846 8081A
	109	(37 - 142)	1.4	(0-15)	SW846 8081A
Methoxychlor	121	(30 - 150)			SW846 8081A
	119	(30 - 150)	2.2	(0-15)	SW846 8081A
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS			
Decachlorobiphenyl	108	(50 - 138)			
	106	(50 - 138)			
Tetrachloro-m-xylene	96	(51 - 103)			
	100	(51 - 103)			

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TCLP Metals

Lot-Sample #....: D8G280161

Matrix.....: SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP- BATCH #
Arsenic	111	(80 - 116)			SW846 6010B	08/06-08/20/98	8218160
	114	(80 - 116)	2.0	(0-10)	SW846 6010B	08/06-08/20/98	8218160
					Dilution Factor: 1		
Barium	106	(83 - 111)			SW846 6010B	08/06-08/20/98	8218160
	107	(83 - 111)	1.1	(0-10)	SW846 6010B	08/06-08/20/98	8218160
					Dilution Factor: 1		
Cadmium	107	(82 - 110)			SW846 6010B	08/06-08/20/98	8218160
	108	(82 - 110)	1.7	(0-10)	SW846 6010B	08/06-08/20/98	8218160
					Dilution Factor: 1		
Chromium	105	(80 - 120)			SW846 6010B	08/06-08/20/98	8218160
	107	(80 - 120)	1.6	(0-10)	SW846 6010B	08/06-08/20/98	8218160
					Dilution Factor: 1		
Lead	105	(82 - 114)			SW846 6010B	08/06-08/20/98	8218160
	107	(82 - 114)	1.3	(0-10)	SW846 6010B	08/06-08/20/98	8218160
					Dilution Factor: 1		
Selenium	108	(85 - 125)			SW846 6010B	08/06-08/20/98	8218160
	109	(85 - 125)	0.96	(0-11)	SW846 6010B	08/06-08/20/98	8218160
					Dilution Factor: 1		
Silver	104	(83 - 108)			SW846 6010B	08/06-08/20/98	8218160
	106	(83 - 108)	1.5	(0-10)	SW846 6010B	08/06-08/20/98	8218160
					Dilution Factor: 1		
Mercury	86	(80 - 111)			SW846 7471A	08/26/98	8238335
	89	(80 - 111)	4.0	(0-10)	SW846 7471A	08/26/98	8238335
					Dilution Factor: 1		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT**TOTAL Metals****Lot-Sample #...: D8G280161****Matrix.....: SOLID**

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Mercury	103	(82 - 114)			SW846 7471A	08/06-08/07/98	8218276
	103	(82 - 114}	0.02	(0-10)	SW846 7471A	08/06-08/07/98	8218276
Aluminum	103	(88 - 120)			SW846 6010B	08/10-08/21/98	8222147
	103	(88 - 120)	0.18	(0-10)	SW846 6010B	08/10-08/21/98	8222147
Antimony	113	(82 - 113)			SW846 6010B	08/10-08/21/98	8222147
	116 N	(82 - 113)	2.6	(0-10)	SW846 6010B	08/10-08/21/98	8222147
Arsenic	95	(88 - 108)			SW846 6010B	08/10-08/21/98	8222147
	96	(88 - 108)	0.84	(0-10)	SW846 6010B	08/10-08/21/98	8222147
Barium	103	(85 - 112)			SW846 6010B	08/10-08/21/98	8222147
	104	(85 - 112)	0.52	(0-10)	SW846 6010B	08/10-08/21/98	8222147
Beryllium	103	(78 - 118)			SW846 6010B	08/10-08/21/98	8222147
	104	(78 - 118)	0.89	(0-10)	SW846 6010B	08/10-08/21/98	8222147
Cadmium	104	(80 - 120)			SW846 6010B	08/10-08/21/98	8222147
	102	(80 - 120)	1.9	(0-16)	SW846 6010B	08/10-08/21/98	8222147
Calcium	98	(85 - 114)			SW846 6010B	08/10-08/21/98	8222147
	99	(85 - 114)	0.56	(0-10)	SW846 6010B	08/10-08/21/98	8222147
Chromium	99	(83 - 112)			SW846 6010B	08/10-08/21/98	8222147
	100	(83 - 112)	0.70	(0-10)	SW846 6010B	08/10-08/21/98	8222147
Cobalt	102	(80 - 116)			SW846 6010B	08/10-08/21/98	8222147
	102	(80 - 116)	0.27	(0-10)	SW846 6010B	08/10-08/21/98	8222147

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #....: D8G280161

Matrix.....: SOLID

PARAMETER	PERCENT	RECOVERY	RPD	METHOD	PREPARATION-	PREP-
	RECOVERY	LIMITS	RPD		ANALYSIS	DATE
Copper	104	(84 - 115)		SW846 6010B	08/10-08/21/98	8222147
	105	(84 - 115) 0.32 (0-10)		SW846 6010B	08/10-08/21/98	8222147
Dilution Factor: 1						
Iron	101	(87 - 117)		SW846 6010B	08/10-08/21/98	8222147
	101	(87 - 117) 0.29 (0-10)		SW846 6010B	08/10-08/21/98	8222147
Dilution Factor: 1						
Lead	102	(89 - 115)		SW846 6010B	08/10-08/21/98	8222147
	102	(89 - 115) 0.45 (0-10)		SW846 6010B	08/10-08/21/98	8222147
Dilution Factor: 1						
Magnesium	106	(84 - 113)		SW846 6010B	08/10-08/21/98	8222147
	106	(84 - 113) 0.73 (0-10)		SW846 6010B	08/10-08/21/98	8222147
Dilution Factor: 1						
Manganese	99	(84 - 114)		SW846 6010B	08/10-08/21/98	8222147
	100	(84 - 114) 0.77 (0-10)		SW846 6010B	08/10-08/21/98	8222147
Dilution Factor: 1						
Nickel	97	(84 - 112)		SW846 6010B	08/10-08/21/98	8222147
	99	(84 - 112) 2.6 (0-10)		SW846 6010B	08/10-08/21/98	8222147
Dilution Factor: 1						
Potassium	103	(82 - 110)		SW846 6010B	08/10-08/21/98	8222147
	103	(82 - 110) 0.16 (0-10)		SW846 6010B	08/10-08/21/98	8222147
Dilution Factor: 1						
Selenium	92	(82 - 110)		SW846 6010B	08/10-08/21/98	8222147
	93	(82 - 110) 0.59 (0-10)		SW846 6010B	08/10-08/21/98	8222147
Dilution Factor: 1						
Silver	99	(80 - 115)		SW846 6010B	08/10-08/21/98	8222147
	99	(80 - 115) 0.08 (0-10)		SW846 6010B	08/10-08/21/98	8222147
Dilution Factor: 1						
Sodium	104	(85 - 117)		SW846 6010B	08/10-08/21/98	8222147
	104	(85 - 117) 0.28 (0-10)		SW846 6010B	08/10-08/21/98	8222147
Dilution Factor: 1						

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #....: D8G280161

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>PREP-BATCH #</u>
Thallium	93	(86 - 114)			SW846 6010B	08/10-08/21/98	8222147
	93	(86 - 114) 0.65 (0-10)			SW846 6010B	08/10-08/21/98	8222147
Vanadium	100	(85 - 116)			SW846 6010B	08/10-08/21/98	8222147
	100	(85 - 116) 0.49 (0-10)			SW846 6010B	08/10-08/21/98	8222147
Zinc	100	(80 - 120)			SW846 6010B	08/10-08/21/98	8222147
	99	(80 - 120) 0.20 (0-10)			SW846 6010B	08/10-08/21/98	8222147
		Dilution Factor: 1					

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D8G280161

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MB Lot-Sample #: D8H060000-276 Prep Batch #...: 8218276						
Mercury	ND	0.033	mg/kg	SW846 7471A	08/06-08/07/98	CKDGF101
		Dilution Factor: 1				
		Analysis Time...: 11:44				
MB Lot-Sample #: D8H100000-147 Prep Batch #...: 8222147						
Aluminum	ND	10.0	mg/kg	SW846 6010B	08/10-08/21/98	CKF6W11P
		Dilution Factor: 1				
		Analysis Time...: 14:41				
Antimony	2.2	6.0	mg/kg	SW846 6010B	08/10-08/21/98	CKF6W102
		Dilution Factor: 1				
		Analysis Time...: 14:41				
Arsenic	ND	1.0	mg/kg	SW846 6010B	08/10-08/21/98	CKF6W11E
		Dilution Factor: 1				
		Analysis Time...: 15:14				
Barium	ND	1.0	mg/kg	SW846 6010B	08/10-08/21/98	CKF6W109
		Dilution Factor: 1				
		Analysis Time...: 14:41				
Beryllium	ND	0.20	mg/kg	SW846 6010B	08/10-08/21/98	CKF6W10A
		Dilution Factor: 1				
		Analysis Time...: 14:41				
Cadmium	ND	0.50	mg/kg	SW846 6010B	08/10-08/21/98	CKF6W10C
		Dilution Factor: 1				
		Analysis Time...: 14:41				
Calcium	ND	20.0	mg/kg	SW846 6010B	08/10-08/21/98	CKF6W11Q
		Dilution Factor: 1				
		Analysis Time...: 14:41				
Chromium	ND	1.0	mg/kg	SW846 6010B	08/10-08/21/98	CKF6W10E
		Dilution Factor: 1				
		Analysis Time...: 14:41				
Cobalt	ND	1.0	mg/kg	SW846 6010B	08/10-08/21/98	CKF6W10D
		Dilution Factor: 1				
		Analysis Time...: 14:41				

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D8G280161

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
		LIMIT	UNITS				
Copper	ND	2.0	mg/kg		SW846 6010B	08/10-08/21/98	CKF6W10F
		Dilution Factor: 1					
		Analysis Time...: 14:41					
Iron	1.7 B	10.0	mg/kg		SW846 6010B	08/10-08/21/98	CKF6W11H
		Dilution Factor: 1					
		Analysis Time...: 14:41					
Lead	0.26 B	0.30	mg/kg		SW846 6010B	08/10-08/21/98	CKF6W10S
		Dilution Factor: 1					
		Analysis Time...: 15:14					
Magnesium	ND	20.0	mg/kg		SW846 6010B	08/10-08/21/98	CKF6W11K
		Dilution Factor: 1					
		Analysis Time...: 14:41					
Manganese	ND	1.0	mg/kg		SW846 6010B	08/10-08/21/98	CKF6W11L
		Dilution Factor: 1					
		Analysis Time...: 14:41					
Nickel	ND	4.0	mg/kg		SW846 6010B	08/10-08/21/98	CKF6W10I
		Dilution Factor: 1					
		Analysis Time...: 14:41					
Potassium	ND	500	mg/kg		SW846 6010B	08/10-08/21/98	CKF6W11J
		Dilution Factor: 1					
		Analysis Time...: 14:41					
Selenium	ND	0.50	mg/kg		SW846 6010B	08/10-08/21/98	CKF6W106
		Dilution Factor: 1					
		Analysis Time...: 15:14					
Silver	ND	1.0	mg/kg		SW846 6010B	08/10-08/21/98	CKF6W108
		Dilution Factor: 1					
		Analysis Time...: 14:41					
Sodium	ND	500	mg/kg		SW846 6010B	08/10-08/21/98	CKF6W11M
		Dilution Factor: 1					
		Analysis Time...: 14:41					
Thallium	ND	1.0	mg/kg		SW846 6010B	08/10-08/21/98	CKF6W11N
		Dilution Factor: 1					
		Analysis Time...: 15:14					
Vanadium	ND	1.0	mg/kg		SW846 6010B	08/10-08/21/98	CKF6W103
		Dilution Factor: 1					
		Analysis Time...: 14:41					

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D8G280161

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>			<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>			<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Zinc	ND	1.0	mg/kg	SW846 6010B		08/10-08/21/98	CKF6W104
		Dilution Factor: 1					
		Analysis Time...: 14:41					

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

TCLP Metals

Client Lot #....: D8G280161

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
	MB Lot-Sample #: D8G300000-316	Prep Batch #...:	8218160			
	Leach Date.....: 07/29/98	Leach Batch #..:	P821106			
Arsenic	ND	0.50	mg/L	SW846 6010B	08/06-08/20/98	CK80H103
		Dilution Factor: 1				
		Analysis Time...: 18:14				
Barium	0.030 B	10.0	mg/L	SW846 6010B	08/06-08/20/98	CK80H104
		Dilution Factor: 1				
		Analysis Time...: 18:14				
Cadmium	ND	0.10	mg/L	SW846 6010B	08/06-08/20/98	CK80H105
		Dilution Factor: 1				
		Analysis Time...: 18:14				
Chromium	0.0046 B	0.50	mg/L	SW846 6010B	08/06-08/20/98	CK80H106
		Dilution Factor: 1				
		Analysis Time...: 18:14				
Lead	ND	0.50	mg/L	SW846 6010B	08/06-08/20/98	CK80H107
		Dilution Factor: 1				
		Analysis Time...: 18:14				
Selenium	ND	0.25	mg/L	SW846 6010B	08/06-08/20/98	CK80H108
		Dilution Factor: 1				
		Analysis Time...: 18:14				
Silver	ND	0.50	mg/L	SW846 6010B	08/06-08/20/98	CK80H109
		Dilution Factor: 1				
		Analysis Time...: 18:14				

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

TCLP Metals

Client Lot #...: D8G280161

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>			<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
		<u>LIMIT</u>	<u>UNITS</u>				
MB Lot-Sample #: D8H260000-335		Prep Batch #...:	8238335				
Mercury	ND	0.00020	mg/L	SW846 7471A		08/26/98	CL0KD101
		Dilution Factor:	1				
		Analysis Time..:	13:54				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D8G280161

Date Sampled...: 08/04/98 15:15 Date Received..: 08/05/98

Matrix.....: SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Copper	105	(84 - 115)			SW846 6010B	08/10-08/21/98	CKC8A11K
	103	(84 - 115)	1.6	(0-10)	SW846 6010B	08/10-08/21/98	CKC8A11L
		Dilution Factor: 1					
		Analysis Time...: 16:25					
Iron	NC	(87 - 117)			SW846 6010B	08/10-08/21/98	CKC8A11R
	NC	(87 - 117)		(0-10)	SW846 6010B	08/10-08/21/98	CKC8A11T
		Dilution Factor: 1					
		Analysis Time...: 16:25					
Lead	102	(89 - 115)			SW846 6010B	08/10-08/21/98	CKC8A110
	99	(89 - 115)	2.4	(0-10)	SW846 6010B	08/10-08/21/98	CKC8A111
		Dilution Factor: 1					
		Analysis Time...: 17:06					
Magnesium	117 N	(84 - 113)			SW846 6010B	08/10-08/21/98	CKC8A120
	115 N	(84 - 113)	1.4	(0-10)	SW846 6010B	08/10-08/21/98	CKC8A121
		Dilution Factor: 1					
		Analysis Time...: 16:25					
Manganese	102	(84 - 114)			SW846 6010B	08/10-08/21/98	CKC8A123
	112	(84 - 114)	3.1	(0-10)	SW846 6010B	08/10-08/21/98	CKC8A124
		Dilution Factor: 1					
		Analysis Time...: 16:25					
Nickel	95	(84 - 112)			SW846 6010B	08/10-08/21/98	CKC8A10P
	92	(84 - 112)	2.2	(0-10)	SW846 6010B	08/10-08/21/98	CKC8A10Q
		Dilution Factor: 1					
		Analysis Time...: 16:25					
Potassium	121 N	(82 - 110)			SW846 6010B	08/10-08/21/98	CKC8A11V
	120 N	(82 - 110)	0.32	(0-10)	SW846 6010B	08/10-08/21/98	CKC8A11W
		Dilution Factor: 1					
		Analysis Time...: 16:25					
Selenium	82	(82 - 110)			SW846 6010B	08/10-08/21/98	CKC8A112
	82	(82 - 110)	0.40	(0-10)	SW846 6010B	08/10-08/21/98	CKC8A113
		Dilution Factor: 1					
		Analysis Time...: 17:06					
Silver	93	(80 - 115)			SW846 6010B	08/10-08/21/98	CKC8A116
	91	(80 - 115)	2.4	(0-10)	SW846 6010B	08/10-08/21/98	CKC8A117
		Dilution Factor: 1					
		Analysis Time...: 16:25					

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D8G280161

Date Sampled...: 08/04/98 15:15 Date Received...: 08/05/98

Matrix.....: SOLID

PARAMETER	PERCENT	RECOVERY	RPD	METHOD	PREPARATION-	WORK
	RECOVERY	LIMITS	RPD		ANALYSIS DATE	ORDER #
Sodium	98	(85 - 117)		SW846 6010B	08/10-08/21/98	CKC8A126
	97	(85 - 117) 0.43 (0-10)		SW846 6010B	08/10-08/21/98	CKC8A127
		Dilution Factor: 1				
		Analysis Time...: 16:25				
Thallium	82 N	(86 - 114)		SW846 6010B	08/10-08/21/98	CKC8A129
	82 N	(86 - 114) 0.14 (0-10)		SW846 6010B	08/10-08/21/98	CKC8A12A
		Dilution Factor: 1				
		Analysis Time...: 17:06				
Vanadium	113	(85 - 116)		SW846 6010B	08/10-08/21/98	CKC8A10U
	109	(85 - 116) 2.3 (0-10)		SW846 6010B	08/10-08/21/98	CKC8A10V
		Dilution Factor: 1				
		Analysis Time...: 16:25				
Zinc	110	(80 - 120)		SW846 6010B	08/10-08/21/98	CKC8A10W
	103	(80 - 120) 4.3 (0-10)		SW846 6010B	08/10-08/21/98	CKC8A10X
		Dilution Factor: 1				
		Analysis Time...: 16:25				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

* Relative percent difference (RPD) is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and/or RPD were not calculated.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TCLP Metals

Client Lot #...: D8G280161

Matrix.....: SOLID

Date Sampled...: 07/22/98 15:47 Date Received...: 07/28/98

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MS Lot-Sample #: D8G280161-001 Prep Batch #...: 8218160							
Leach Date.....:	07/29/98			Leach Batch #...:	P821106		
Arsenic	109	(80 - 116)			SW846 6010B	08/06-08/20/98	CK5V110E
	107	(80 - 116) 1.7 (0-10)			SW846 6010B	08/06-08/20/98	CK5V110F
		Dilution Factor: 1					
		Analysis Time...: 18:53					
Barium	104	(83 - 111)			SW846 6010B	08/06-08/20/98	CK5V110J
	103	(83 - 111) 1.4 (0-10)			SW846 6010B	08/06-08/20/98	CK5V110K
		Dilution Factor: 1					
		Analysis Time...: 18:53					
Cadmium	104	(82 - 110)			SW846 6010B	08/06-08/20/98	CK5V110L
	105	(82 - 110) 0.82 (0-10)			SW846 6010B	08/06-08/20/98	CK5V110M
		Dilution Factor: 1					
		Analysis Time...: 18:53					
Chromium	104	(80 - 120)			SW846 6010B	08/06-08/20/98	CK5V110N
	102	(80 - 120) 1.6 (0-10)			SW846 6010B	08/06-08/20/98	CK5V110P
		Dilution Factor: 1					
		Analysis Time...: 18:53					
Lead	105	(82 - 114)			SW846 6010B	08/06-08/20/98	CK5V110Q
	103	(82 - 114) 1.7 (0-10)			SW846 6010B	08/06-08/20/98	CK5V110R
		Dilution Factor: 1					
		Analysis Time...: 18:53					
Selenium	111	(85 - 125)			SW846 6010B	08/06-08/20/98	CK5V110T
	109	(85 - 125) 2.3 (0-11)			SW846 6010B	08/06-08/20/98	CK5V110U
		Dilution Factor: 1					
		Analysis Time...: 18:53					
Silver	100	(83 - 108)			SW846 6010B	08/06-08/20/98	CK5V110V
	102	(83 - 108) 1.5 (0-10)			SW846 6010B	08/06-08/20/98	CK5V110W
		Dilution Factor: 1					
		Analysis Time...: 18:53					

MS Lot-Sample #: D8G280161-001 Prep Batch #...: 8238335

Leach Date.....: 07/29/98 Leach Batch #...: P821106

Mercury	97	(80 - 111)		SW846 7471A	08/26/98	CK5V110X
	94	(80 - 111) 3.7 (0-10)		SW846 7471A	08/26/98	CK5V1110
		Dilution Factor: 1				
		Analysis Time...: 13:54				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D8G280161

Matrix.....: SOLID

Date Sampled...: 07/22/98 15:47 Date Received..: 07/28/98

PARAMETER	SAMPLE SPIKE MEASURED			PERCNT			PREPARATION-	WORK
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD		

MS Lot-Sample #: D8G280161-004 Prep Batch #...: 8218276

Mercury

0.74	0.477	1.47	N	mg/kg	153		SW846	7471A	08/06-08/07/98 CK7FX10R
0.74	0.477	1.11	N,*	mg/kg	78	27	SW846	7471A	08/06-08/07/98 CK7FX10T

Dilution Factor: 10

Analysis Time..: 19:42

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

• Relative percent difference (RPD) is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D8G280161

Matrix.....: SOLID

Date Sampled...: 07/22/98 15:47 Date Received...: 07/28/98

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MS Lot-Sample #: D8G280161-004 Prep Batch #...: 8218276							
Mercury	153 N 78 N,*	(82 - 114) (82 - 114)	27	(0-10)	SW846 7471A SW846 7471A	08/06-08/07/98 CK7FX10R 08/06-08/07/98 CK7FX10T	
					Dilution Factor: 10 Analysis Time...: 19:42		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

* Relative percent difference (RPD) is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

D8GZ80161

UOS URS Operating Services, Inc. 1099 18th Street, Suite 710, Denver, CO 80202		SHIP TO:				CHAIN OF CUSTODY RECORD					
PROJECT NO/NAME: VASQUEZ BLVD / 1-70		SITE MANAGER: <i>[Signature]</i>		Number of Containers	TCLP (Inorganic)	Total Metals					
SAMPLERS SIGNATURE:											
STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION						REMARKS
01, 041CP	7/22/98	1547	✓	GRABS	C4534 ST TCLP	1	✓	✓			ND00 4042
02, 051CP	7/22/98	1652	✓	GRABS	C4940 ST TCLP	1	✓	✓			ND00 4053
03, 061CP	7/24/98	1232	✓	GRABS	C4090 CY TCLP	1	✓	✓			ND00 4130
<i>(Large area of the table is crossed out with a large X.)</i>											
RELINQUISHED BY: (Signature) <i>[Signature]</i>		DATE	TIME	RECEIVED BY: (Signature) <i>[Signature]</i>		RELINQUISHED BY: (Signature)		DATE	TIME	RECEIVED BY: (Signature)	
		7/28/98	1130								
RELINQUISHED BY: (Signature) <i>[Signature]</i>		DATE	TIME	RECEIVED BY: (Signature) <i>[Signature]</i>		RELINQUISHED BY: (Signature)		DATE	TIME	RECEIVED BY: (Signature)	
		7/28/98	1330	ZOOM							
RELINQUISHED BY: (Signature) <i>[Signature]</i>		DATE	TIME	RECEIVED FOR LABORATORY BY: (Signature) <i>[Signature]</i>		DATE	TIME	REMARKS: AIRBILL NUMBER: 7-28-98 1530			

71-50906.00

RSTARTForms\Custody.Fm.bas

White - Original to Accompany Samples

Yellow - UOS Main Office

Pink - UOS Field Office

DN 4146

SAMPLE CHECKLIST

Revision Date: 6/26/98

Lot #: D8G280161Date/Time Received: 7-28-98 @ 1530

Page: 12 of 24

Company Name & Sampling Site: URS*Cooler #(s): 1
Temperatures: 24.1Unpacking & Labeling Check Points:

W/A Yes No

1. Radiation checked, record if reading > 0.5 mR/hr. (mR/hr) 160
2. Cooler seals intact.
3. Chain of custody present.
4. Bottles broken and/or are leaking, comment if yes.

PHOTOGRAPH BROKEN BOTTLES

5. Containers labeled, comment if no.
6. pH of all samples checked and meet requirements, note exceptions.
7. Chain of custody includes "received by" and "relinquished" by signatures, dates, and times.
8. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
9. Chain of custody agrees with bottle count, comment if no.
10. Chain of custody agrees with labels, comment if no.
11. VOA samples filled completely, comment if no.
12. VOA bottles preserved, check for labels.
13. Did samples require preservation with sodium thiosulfate?
14. If yes to #12, did the samples contain residual chlorine?
15. Sediment present in "D," dissolved bottles.
16. Are analyses with short holding times requested?
17. Is extra sample volume provided for MS, MSD or matrix duplicates?
18. Multiphase samples present? If yes, comment below.
19. Any subsampling for volatiles? If yes, list samples.

PHOTOGRAPH MULTIPHASE SAMPLES

20. Clear picture taken, labeled, and stapled to project folder.
21. Subcontract COC signed and sent with samples to bottle prep?
22. Was sample labeling double checked?

Comments: Include action taken to resolve discrepancies/problems. Include a hard copy of e-mail or use extra paper if more space is needed. Samples sampled 7-22 - 7-24Poly bottles and headspaceInitials: ASD

To: Randy Perlis	From Ellen La Riviere
Co.:URS Operating Services	Quanterra Denver
Fax #: (303)291-8296	Phone: (303)421-6611 Fax: (303)431-7171



CONFIRMATION OF COMMUNICATION

Pursuant to our conversation today, the following is Quanterra's understanding of your instructions. We believe this is is not a contract change. An estimate of the schedule and cost impact (if any) will follow, so that change order negotiations may begin, if necessary. Meanwhile, Quanterra will will not perform according to the revised instructions, unless you instruct otherwise.

Client Name: URS Operating Services, Inc.	Program Name/LIMS Number: 25025
Quanterra Project Number: D8G280161	Contact at Laboratory: Ellen La Riviere
Date of Request: July 29, 1998	Contract/Order Number: PO# OS-98-P-5240
Date Change Order Submitted to Client: July 29, 1998	Authorized Client Representative: Randy Perlis

TYPE OF CHANGE:	DESCRIPTION OF MODIFICATION/CHANGE/DISCREPANCY/NOTIFICATION:
<input type="checkbox"/> Method <input type="checkbox"/> Sample Delivery Schedule <input type="checkbox"/> SDA Criteria <input type="checkbox"/> Matrix <input type="checkbox"/> QC Change <input checked="" type="checkbox"/> Bottles Received <input type="checkbox"/> Deliverable <input type="checkbox"/> C of C Discrepancies	Samples logged in under Quanterra lot # D8G280161 were received at room temperature in plastic jars with headspace. The client was contacted on July 29, 1998 and approved the laboratory to proceed with the analyses.
<input type="checkbox"/> PROGRAM CHANGE <input checked="" type="checkbox"/> PROJECT CHANGE ONLY	

Date change is to be implemented: July 29, 1998

APPROVED BY:
CLIENT REP:

QUANTERRA REP:

Follow-up required: N/A

Yes, Describe: Please sign and return copy of this confirmation of communication.